

MECHANISMS OF AGEING AND DEVELOPMENT

VOLUME CONTENTS

Volume 62 (1992)

Replicative potential and the duration of the cell cycle in human fibroblasts: coordinate stimulation by epidermal growth factor	1
J.C. Angello (Seattle, WA)	
Characterization of nuclear morphology and nuclear matrices in ageing human fibroblasts	13
K.J. Pienta, R.H. Getzenberg and D.S. Coffey (Baltimore, MD)	
Effect of sialectomy on the superior cervical ganglion sympathetic neurons in young adult and aged mice	25
S. Lahtivirta, J. Koistinaho and A. Hervonen (Tampere, Finland)	
Lipofuscin-like fluorophores can result from reaction between oxidized ascorbic acid and glutamine. Carbonyl-protein cross-linking may represent a common reaction in oxygen radical and glycosylation-related ageing processes	35
D. Yin (Linköping, Sweden)	
Cell surface oligosaccharide modulation during differentiation: V. Partial characterization of the regulated surface during substrate adhesion and spreading.....	47
P.L. Mann, S.C. Busse, R.H. Griffey and C.M. Tellez (New Mexico, U.S.A.)	
Cell surface oligosaccharide modulation during differentiation: VI. The effect of biomodulation on the senescent and neoplastic cell phenotype.....	79
P.L. Mann, S.C. Busse, R.H. Griffey and K. Laubscher (New Mexico, U.S.A.)	
Age-related change of free radical generation in liver and sex glands of rats	111
H. Zhan, C.-P. Sun, C.-P. Liu and J.-H. Zhou (Beijing, China)	
The effects of thymus supernatant on the thymus homing ability of aged murine bone marrow cells	117
K.R. McCormick and J.L. Haar (Richmond, VA)	
Aging and mortality: manifestations of natural 'non-selection'	127
J.E. Riggs (Morgantown, WV)	
Food restriction and membrane fluidity	137
G. Levin, U. Cogan and S. Mokady (Haifa, Israel)	
Osteoclast recruitment in response to human bone matrix is age related ...	143
B. Groessner-Schreiber, M. Krukowski, C. Lyons and P. Osdoby (St. Louis, MO)	

The effect of donor age on human fibroblast beta-adrenergic receptor response and agonist-induced desensitization	155
D. Conlon, K. O'Malley and S.A. Kilfeather (Dublin, Republic of Ireland)	
Transmembrane electrical potential of lymphocytes in ageing mice. Flow cytometric analysis of mitogen-stimulated cells	167
J.M. Witkowski and H. Speeding Micklem (Gdansk, Poland and Edinburgh, U.K.)	
Effect of aging on metabolic zonation in rat liver: acinar distribution of GSH metabolism	181
J. Sastre, J.V. Rodriguez, F.V. Pallardó, E. Gasco, M. Asensi, J.V. Ferrer, J. Miquel and J. Viña (Valencia and Alicante, Spain and Rosario, Argentina)	
Mortality among the elderly in the U.S., 1956-1987: demonstration of the upper boundary to Gompertzian mortality	191
J.E. Riggs and R.J. Millecchia (Morgantown, WV)	
Neural cell adhesion molecule (NCAM) and N-cadherin mRNA during development and aging: selective reduction in the 7.4-kb and 6.7-kb NCAM mRNA levels in the hippocampus of adult and old rats	201
A.P. Wagner, K.D. Beck and G. Reck (Karlsruhe, F.R.G. and Los Angeles, U.S.A.)	
Age-related changes of the human ciliary muscle. A quantitative morphometric study	209
S. Tamm, E. Tamm and J.W. Rohen (Erlangen, F.R.G.)	
The influence of age on supraoptic nucleus neurons of the rat: morphometric and morphologic changes.....	223
D. Crespo, C. Fernández-Viadero and C. González (Santander and Laredo, Spain)	
Aging, chronic administration of ethanol, and acute exposure to nitrous oxide: effects on vitamin B ₁₂ and folate status in rats.....	229
B.W. Everman and D.D. Koblin (San Francisco, CA)	
Chromosomal alterations and sister chromatid exchanges induced by zirconium oxychloride in human lymphocytes in vitro with relation to age of donors	245
S. Ghosh, G. Talukder and A. Sharma (Calcutta, India)	
Methylated cytosine level in human liver DNA does not decline in aging process.....	255
R. Tawa, S. Ueno, K. Yamamoto, Y. Yamamoto, K. Sagisaka, R. Katakura, T. Kayama, T. Yoshimoto, H. Sakurai and T. Ono (Kyoto and Sendai, Japan)	
Plasma vasopressin and cortical nephron function in aging rats.....	263
B. Corman, N. Roinel and G. Geelen (Gif sur Yvette and Lyon, France)	

Age-related changes in serotonin-immunoreactive neurons in the rat nucleus raphe dorsalis and nucleus centralis superior: a light microscope study. I. Lolova and M. Davidoff (Sofia, Bulgaria)	279
Regulation of calcium levels in brain tissue from adult and aged rats..... M.L. Michaelis, C.T. Foster and C. Jayawickreme (Lawrence, KS)	291
Age-associated decrease in proportion and antigen expression of CD8+/CD4+ thymocytes in BALB/c mice..... M. El Demellaway and R. El Ridi (Cairo, Egypt)	307
Age-dependent alteration in regional cerebrovascular permeability during drug-induced epilepsy..... Y. Ziya Ziyilan, J.-M. Lefauconnier, N. Ates, G. Bernard and J.-M. Bourre (Istanbul, Turkey and Paris, France)	319
Author Index.....	329
Subject Index.....	331
Volume Contents.....	335

